PROJECT TITLE : PROTAGORAS

PERIOD COVERED : AUGUST 18 - SEPTEMBER 17, 1981

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Preliminary information on Mexican Burley strip extractions has enabled us to choose a partially defined process : it involves water extraction, followed by lowering of the pH, addition of KOH and enzyme extraction. In order to optimize the different extraction steps we are trying to find the approximate extraction efficiency by varying the temperature from 37°C to 95°C during the water extraction phase. There is a notable decrease in the protein content of the resulting tobacco when the temperature is increased from 37°C to 50°C and a slight protein decrease is found when the temperature is increased from 60°C to 95°C. The optimum extraction takes place between 50°C and 70°C, a higher temperature gives a slightly better result. Varying the KOH concentration from 0 to 1 M after a first water wash leads to a considerable loss of protein at KOH concentrations of between 0.4 and 0.5 M. The loss of protein at higher concentrations of KOH is proportional to the tobacco weight loss. The resulting tobacco has a 30% loss in protein content.

REFERENCES

(1) Bindler-G.-N., Notebook 80.08.04
(2) Mangilli-M.-F., Notebook 80.08.05

GNB/jig/SEPTEMBER 29, 1981